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09/994,477	11/26/2001	Pedram Abrari	11973-004001	7237
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FISH & RICHARDSON P.C. 3300 DAIN RAUSCHER PLAZA MINNEAPOLIS, MN 55402			INGBERG, TODD D	
			ART UNIT	PAPER NUMBER
			2193	

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/994,477

Applicant(s)

ABRARI ET AL.

Examiner

Todd Ingberg

Art Unit

2124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 6-8, 18-22, 26-27, 32-39, 45, 49-53 is/are rejected.
- 7) ☒ Claim(s) 2-5, 9-17, 23-25, 28-30, 40-44, 47 and 48 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. <u>2/7/05</u> |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/11/2002</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1 – 53 have been examined.

Priority

1. Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged.

Oath/Declaration

2. It does not state that the person making the oath or declaration acknowledges the duty to disclose to the Office all information known to the person to be material to patentability as defined in 37 CFR 1.56. Applicant has elected to select portions of 37 CFR 1.56(a). Applicant should use the updated version on the USPTO website at USPTO.GOV.

Drawings

3. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because Figures 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 and 17 have shaded areas with text. When printed in Patent literature the text will not be able to be read. The shading should be altered/deleted. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The requirement for corrected drawings will not be held in abeyance.

Information Disclosure Statement

4. The information disclosure statement filed September 11, 2002 has been considered.

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Knowledge of the Ordinary Artisan

5. The following is deemed knowledge one of ordinary skill in the art would have know prior to the time of invention.

The publication, "Principles of Object-Oriented Analysis and Design", by James Martin published October 29, 1992 covers the basic concepts of RULES as disclosed in Chapter 10 titled "RULES". The basic concepts of RULES as taught between the pages of 133 to 154 would have been know to one of ordinary skill in the art.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, N are rejected under 35 U.S.C. 102(b) as being anticipated by Template Software with the commercial product Workflow released in 1997 and documented by the documentation set copyrighted 1998.

The **Template** product line contains:

The SNAP programming language (Not used in this Office Action)

The Workflow Template (Two manuals used)

The Web Component (Not used in this Office Action)

These three layered products work together.

The documentation sets for the products contains the following manuals.

SNAP released June 1997

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SNAP Language Reference (Not used in this Office Action)

Using the SNAP Language (Not used in this Office Action)

Using the SNAP Communication Component (Not used in this Office Action)

Using the SNAP Graphic User Interface Component (Not used in this Office Action)

Getting Started with SNAP (Not used in this Office Action)

Using the SNAP Display Editors (Not used in this Office Action)

SNAP Class Library Reference (Not used in this Office Action)

Using the SNAP External Application Software Component (Not used in this Office Action)

Using the SNAP Development Environment (Referred to as **SNAP**)

SNAP Module Library Reference (Not used in this Office Action)

Using the SNAP Permanent Storage Component (Not used in this Office Action)

Workflow released September 1997

Developing a WFT Workflow System (Referred to as **WFT**)

Using the WFT Development Environment (Referred to as **Using**)

WFT Library Reference (Not used in this Office Action)

Web Component

Using the Web Component (Not used in this Office Action)

Since, these products work together they constitute a single reference and can be used as the basis for a rejection based on anticipated by a product offering.

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Claim 1

Template anticipates a computer program product, tangibly stored on a computer-readable medium, for interacting with a user to define business rules in a declarative manner, comprising instructions operable to cause a computer coupled to a display device to: display a rule set as an editable list of conditions and an editable list of actions, the conditions and actions being linked to each other by the combination of an editable list of if-values and an editable list of then-values, wherein if-values and then-values are explicitly linked to each other, conditions and if-values are explicitly linked to each other, and then-values and actions are explicitly linked to each other in the displayed lists; and receive from a user inputs editing one or more of the editable lists.

Examiner's Response

USING page 4-48 teaches the Rule Editor. Note the ability to select from a class structure.

and Types Tab for initial definition USING 4-56 – 58.

The rules are part of classes which make up the object model. USING page 4-12 teaches the object model as a tree which programmers can interact with including click on to access the underlying code. The object model is a form of tree structure. USING page 4-8 shows the drag and drop abilities of the object model editor.

USING page 4-48 teaches the ability to enter a rule. By the limitation *all possible values*, the Examiner interprets this to mean the finite set of values within the problem domain can have an action. Rules page 4-48 in figure 4-9 the Body provides space to provide for programming constructs such as IF THEN ELSE END IF.

The Template system provides several different interfaces to rules. In addition to the Rule Tab above, see WFT, page 4-18, 4-25, and the USING page 4-5 Object model editor.

Claim 6

The product of claim 1, wherein: the actions are expression-defining actions and the if-values and the then-values comprise boolean values.

Examiner's Response

WFT, page 4-25 shows a boolean. in a rule. Boolean is a type supported in the Template system.

Claim 7

The product of claim 6, wherein each of the expression-defining actions comprises an element specifying a data type.

Examiner's Response

USING page 4-48 teaches the Rule Editor. Note the ability to select from a class structure. and Types Tab for initial definition USING 4-56 – 58.

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Claim 8

The product of claim 6, further comprising instructions to: add the expressions defined in the rule set to a vocabulary of a package of rules.

Examiner's Response

USING page 4-48 teaches the Rule Editor. Note the ability to select from a class structure.

Claim 18

The product of claim 1, further comprising instructions to: display the rule set as part of a package of rules, the package containing at least one rule and at least one rule set, each rule in the package being in exactly one of the sets of rules in the package.

Examiner's Response

USING page 4-48 teaches the Rule Editor. Note the ability to select from a class structure.

Claim 19

The product of claim 18, further comprising instructions to: receive an input from a user specifying a test input for the package of rules; and display the test input in one pane while simultaneously displaying the corresponding output from the package of rules in another pane.

Examiner's Response

WFT, Chapter 8 covers the running of the Workflow Simulator. page 805 shows the ability to monitor code executing and results. Also Chapter 9 provides more monitoring abilities.

Claim 20

The product of claim 18, further comprising instructions to: receive from a user an input selecting one of the sets of rules of the package for editing.

Examiner's Response

USING page 4-48 teaches the Rule Editor. Note the ability to select from a class structure.

Claim 21

The product of claim 18, further comprising instructions to: display the package with one or more tabs, each tab representing a rule set.

Examiner's Response

USING page 4-48 teaches the tab windows for Rules.

Claim 22

The product of claim 1, further comprising instructions to: display a value set for each condition, where the values in the value set are all possible if-values of the corresponding condition.

Examiner's Response

USING page 4-48 teaches the ability to enter a rule. By the limitation *all possible values*, the Examiner interprets this to mean the finite set of values within the problem domain can have an action. Rules page 4-48 in figure 4-9 the Body provides space to provide for programming constructs such as IF THEN ELSE END IF.

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Claim 26

The product of claim 1, further comprising instructions to: display a value set for each assignment action, where the values in the value set are all possible then-values of the corresponding assignment action, the possible values being those values that can be assigned by the corresponding action.

Examiner's Response

USING page 4-48 teaches the ability to enter a rule. By the limitation *all possible values*, the Examiner interprets this to mean the finite set of values within the problem domain can have an action. Rules page 4-48 in figure 4-9 the Body provides space to provide for programming constructs such as IF THEN ELSE END IF.

Claim 27

The product of claim 26, further comprising instructions to: display in a then-value cell a pull-down list populated with the values in the value set of the corresponding assignment action.

Examiner's Response

As per claim 26 and the COA as per USING, page 2-36 to 2-37.

Claim 31

The product of claim 1, further comprising instructions to: display a vocabulary in the form of a tree view of business terms and their traversable relationships that can be drag-and-dropped in defining conditions and actions.

Examiner's Response

Template is an object oriented environment. The rules are part of classes which make up the object model. USING page 4-12 teaches the object model as a tree which programmers can interact with including click on to access the underlying code. The object model is a form of tree structure. USING page 4-8 shows the drag and drop abilities of the object model editor.

Claim 32

The product of claim 1, further comprising instructions to: display business rule statements in plain language, each business rule statement being linked to a rule.

Examiner's Response

WFT page 4-18 shows one display format for entering a rule. The interface is intended for the business analyst not a programmer.

Claim 33

The product of claim 1, further comprising instructions to: display shortcuts as an editable list of complex business terms and corresponding aliases, a complex business term being a business term with a specific scope determined by relationship traversals.

Examiner's Response

WFT page 4-18 shows one display format for entering a rule. The interface is intended for the business analyst not a programmer.

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Claim 34

The product of claim 1, further comprising instructions to: display preconditions, where each precondition acts as an additional condition for each rule in the rule set.

Examiner's Response

USING, page 4-48 Condition.

Claim 35

The product of claim 1, further comprising instructions to: display a non-conditional rule column or row.

Examiner's Response

A demon as covered on pages 4-52 to 4-55 of USING (an event such as a timer – not an IF structure).

Claim 36

The product of claim 1, further comprising instructions to: display non-conditional rules, a non-conditional rule being a rule that fires without any conditions other than the preconditions of the rule set.

Examiner's Response

A demon is a form of rules supported by Template. A demon as covered on pages 4-52 to 4-55 of USING. Demons can be programmed to trigger based on attribute conditions, program conditions or a timer

Claim 37

The product of claim 1, further comprising instructions to: receive an input from a user setting an override precedence of one rule over another rule in the rule set; and display the user-defined precedence.

Examiner's Response

Rule over riding is performed through the use of an inference. USING page 4-4

Claim 38

Template anticipates a computer-implemented method for interacting with a user to define business rules in a declarative manner, the method comprising: displaying a rule set as an editable list of conditions and an editable list of actions, the conditions and actions being linked to each other by the combination of an editable list of if-values and an editable list of then-values, wherein if-values and then-values are explicitly linked to each other, conditions and if-values are explicitly linked to each other, and then-values and actions are explicitly linked to each other in the displayed lists; and receiving from a user inputs editing one or more of the editable lists. As per claim 1.

Claim 39

The method of claim 38, wherein: the actions are expression-defining actions and the if-values and the then-values comprise boolean values; and the method further comprises adding the expressions defined in the rule set to a vocabulary of a package of rules. As per claim 8.

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Claim 45

The method of claim 38, further comprising: displaying the rule set as part of a package of rules, the package containing at least one rule and at least one rule set, each rule in the package being in at least one of the sets of rules in the package. As per claim 18.

Claim 51

The method of claim 45, further comprising: receiving an input from a user specifying a test input for the package of rules; and displaying the test input in one pane while simultaneously displaying the corresponding output from the package of rules in another pane. as per claim 19.

Claim 46

The method of claim 38, further comprising: displaying a value set for each condition, where the values in the value set are all possible if-values of the corresponding condition; and displaying a value set for each assignment action, where the values in the value set are all possible then-values of the corresponding assignment action, the possible values being those values that can be assigned by the corresponding action.

Examiner's Response

USING page 4-48 teaches the ability to enter a rule. By the limitation *all possible values*, the Examiner interprets this to mean the finite set of values within the problem domain can have an action. Rules page 4-48 in figure 4-9 the Body provides space to provide for programming constructs such as IF THEN ELSE END IF.

Claim 49

The method of claim 38, further comprising: displaying a vocabulary in the form of a tree view of business terms and their traversable relationships that can be drag-and-dropped in defining conditions and actions.

Examiner's Response

Template is an object oriented environment. The rules are part of classes which make up the object model. USING page 4-12 teaches the object model as a tree which programmers can interact with including click on to access the underlying code. The object model is a form of tree structure. USING page 4-8 shows the drag and drop abilities of the object model editor.

Claim 50

The method of claim 38, further comprising: displaying business rule statements in plain language, each business rule statement being linked to a rule; displaying shortcuts as an editable list of business terms and corresponding aliases; displaying preconditions, where each precondition acts as an additional condition for each rule in the rule set; and displaying non-conditional rules, a non-conditional rule being a rule that fires without any conditions other than the preconditions of the rule set; and displaying a user-defined override precedence of one rule over another rule in the rule set.

Examiner's Response

USING page 4-27 shows an alternative format for entering rules. The order of precedence is determined by the order the program encounters the rule to execute. Another form of rules

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supported by Template is a demon as covered on pages 4-52 to 4-55 of USING. Demons can be programmed to trigger based on attribute conditions, program conditions or a timer.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 52 and 53 are rejected under 35 U.S.C. 102(b) as being anticipated by “Visual Modeling Technique Object Technology Using Visual Programming” by Daniel Tkach et al published 1996.

Claim 52

Tkach anticipates a computer program product, tangibly stored on a computer-readable medium (Tkach, page 324, First paragraph last sentence – visual requirement specification tool”), for interacting with a user to define constraint rules in a declarative manner (Tkach, page 327 – 328 and page 333) , comprising instructions operable to cause a computer coupled to a display device to: display a constraint rule set as a two-dimensional matrix (Tkach, page 333, figure 164), where a first dimension represents constraint conditions (Tkach, page 333 - 334, Figure 164, Condition) and a second dimension represents constraint categories (Tkach, page 333, Figure 164, Classification), the matrix displaying as headings for the first dimension editable constraint conditions and displaying as headings for the second dimension editable categories (Tkach, page 333, Figure 164), the matrix indicating a constraint rule according to which one or more first constraint conditions imply a first constraint category by displaying a mark in all elements of the matrix where the one or more constraint conditions intersect the constraint category(Tkach, page 327 – 328 and page 333); and receive from a user inputs editing the displayed conditions, categories, and marks (Tkach, pages 333 – 334, Actions, Classification, Status).

Claim 53

A computer-implemented method for interacting with a user to define constraint rules in a declarative manner, the method comprising: displaying a constraint rule set as a two-dimensional matrix, where a first dimension represents constraint conditions and a second dimension represents constraint categories, the matrix displaying as headings for the first dimension editable constraint conditions and displaying as headings for the second dimension editable categories, the matrix indicating a constraint rule according to which one or more first constraint conditions imply a first constraint category by displaying a mark in all elements of the matrix

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where the one or more constraint conditions intersect the constraint category; and receiving from a user inputs editing the displayed conditions, categories, and marks. As per claim 52

Allowable Subject Matter

10. Claims 2 – 5, 9-17, 23-25, 28-30, 40-44 and 47- 48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior art of record fails to disclose the specifics of the user interface as found in dependent claims 2, 9 and 40. Closest prior art is:

A. Visual Modeling Technique Object Technology Using Visual Programming by Daniel Tkach et al, pages 33 - 334 shows the implementation of rules in a much different visual format.

B. Principles of Object Oriented Analysis and Design by James Martin on pages 146 – 149 shows the under lying concepts and screen shots of the Rules Editor a commercial product by IntelliCorp.

C. Template Software Reference – Template Software shows several different user interfaces with the rules editor.

11. As per claims 2, 9 and 40 ,Template also has a build your own Graphical User Interface (manual not made of record). Despite the flexibility of the development tool of Template the limitations of claims 2, 9 and 40 are not deemed obvious. Applicant's claim limitations for claims 2, 9 and 40 are clearly depicted in figures 17 and 18 as supported on page 18 of the Specification.

Claim 2

The product of claim 1, further comprising instructions to: display the editable lists in a matrix structure of four quadrants, wherein an editable list of condition terms and an editable list of action terms are displayed in adjacent quadrants, and the editable list of if-values and the editable list of then-values are displayed in adjacent quadrants; and use adjacency of if-values and then-values to represent a conditional rule implementation, where when the specified conditions are true then the corresponding actions are executed.

Claim 9

The product of claim 1, further comprising instructions to: display the editable lists in a matrix structure of four quadrants, wherein an editable list of condition terms is displayed in an upper left quadrant, an editable list of action terms is displayed in a lower left quadrant, the editable list of if-values is displayed in an upper right quadrant, and the editable list of then-values is displayed in a lower right quadrant; and use each vertical column spanning the two right

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quadrants to represent a conditional rule implementation, where when the specified conditions are true then the corresponding actions are executed.

Claim 40

The method of claim 38, further comprising: displaying the editable lists in a matrix structure of four quadrants, wherein an editable list of condition terms is displayed in an upper left quadrant, an editable list of action terms is displayed in a lower left quadrant, the editable list of if-values is displayed in an upper right quadrant, and the editable list of then-values is displayed in a lower right quadrant; and using each vertical column spanning the two right quadrants to represent a conditional rule implementation, where when the specified conditions are true then the corresponding actions are executed.

12. As per claims 23, 25, 30 and 48

The limitation of using "a value of do-not-care" within a rule appears novel over prior art. The Examiner considered rejection with a "enum" data type. However, on page 16 of the Specification this feature is clearly build into the environment and invoked with a dash. An enum data type requires a programmer to define the user defined scalar.

Claim 23

The product of claim 22, further comprising instructions to: display in an if-value cell a pull-down list populated with the values in the value set of the corresponding condition and a value of do-not-care.

Claim 25

The product of claim 22, further comprising instructions to: display a rule having a do-not-care if-value for a condition as multiple simple rules by displaying one simple rule for each value in the value set for the condition having the do-not-care value.

Claim 30

The product of claim 1, further comprising instructions to: display a complex rule as multiple simple rules in response to a user request to expand the complex rule, a complex rule being a rule having a do-not-care if-value for a condition, and each of the multiple simple rules having one of the possible if-values for the condition having the do-not-care value.

Claim 48

The method of claim 38, further comprising: displaying a complex rule as multiple simple rules in response to a user request to expand the complex rule, a complex rule being a rule having a do-not-care if-value for a condition, and each of the multiple simple rules having one of the possible if-values for the condition having the do-not-care value.

13. As per claim 24 is dependent on claim 23 which is under objection.

Claim 24

The product of claim 23, wherein the pull-down list is further populated with a value representing OTHER.

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14. As per claim 28. The prior art of record fails to teach the limitation of a “display an incompleteness in the rule set by auto-creating and displaying rules having combinations of possible if-values not otherwise covered by the rule set.” The Template reference teach how to handle ambiguity but not incomplete rules.

Claim 28

The product of claim 1, further comprising instructions to: display an incompleteness in the rule set by auto-creating and displaying rules having combinations of possible if-values not otherwise covered by the rule set.

15. As per claims 29 and 47 the prior art fails to teach “display a logical ambiguity in the rule set by highlighting rules that can produce different actions for the exact same conditions.” The Template reference teaches a copy of flows with a junction. Although, this is an action, it is not an action as a result of a rule.

Claim 29

The product of claim 1, further comprising instructions to: display a logical ambiguity in the rule set by highlighting rules that can produce different actions for the exact same conditions.

Claim 47

The method of claim 38, further comprising: displaying an incompleteness in the rule set by auto-creating and displaying rules having combinations of possible if-values not otherwise covered by the rule set; and displaying a logical ambiguity in the rule set by highlighting rules that can produce different actions for the exact same conditions.

16. Claims 3 – 5 and 11 are dependent on objected claim 2.

Claim 3

The product of claim 2, wherein: the matrix structure of four quadrants is displayed in a user interface element further comprising a display area for displaying preconditions; and the product further comprises instructions to receive from a user input to create and edit preconditions.

Claim 4

The product of claim 2, wherein: the matrix structure of four quadrants is displayed in a user interface element further comprising a display area for displaying shortcuts; and the product further comprises instructions to receive from a user inputs to create and edit shortcuts.

Claim 11

The product of claim 4, wherein a first condition term is a logical expression with a boolean value and the corresponding if-value is either true or false.

Claim 5

The product of claim 2, wherein: the matrix structure of four quadrants is displayed in a user interface element further comprising a display area for displaying non-conditional rules; and

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the product further comprises instructions to receive from a user inputs to create and edit non-conditional rules.

17. Claims 10 – 17 are dependent on objected claim 9.

Claim 10

The product of claim 9, wherein all if-values and then-values in the same vertical column of values in the two right quadrants are linked to each other to define a rule.

Claim 12

The product of claim 9, wherein a second condition term is a business term and the corresponding if-value is a permitted value or value range of the business term.

Claim 13

The product of claim 9, wherein a first action term is a simple term and the corresponding then-value is a value that can be assigned to the simple term.

Claim 14

The product of claim 9, wherein a second action term is an assignment expression and the corresponding then-value is a check-mark value or not, the presence of the check-mark value specifying that the assignment expression is to be performed.

Claim 15

The product of claim 9, wherein a fourth action term is a post-message expression and the corresponding then-value is a check-mark value or not, the presence of the check-mark value specifying that the post-message expression is to be performed.

Claim 16

The product of claim 15, wherein the action specified by the fourth action term is to post a message for consumption by a human consumer.

Claim 17

The product of claim 15, wherein the action specified by the fourth action term is to post a message for consumption by a software component.

18. Claims 41 – 44 are dependent on objected claim 40.

Claim 41

The method of claim 40, wherein: the matrix structure of four quadrants is displayed in a user interface element further comprising a display area for displaying preconditions; and the method further comprises receiving from a user inputs to create and edit preconditions.

Claim 42

The product of claim 40, wherein: the matrix structure of four quadrants is displayed in a user interface element further comprising a display area for displaying shortcuts; and the method further comprises receiving from a user inputs to create and edit shortcuts.

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Claim 43

The product of claim 40, wherein: the matrix structure of four quadrants is displayed in a user interface element further comprising a display area for displaying non-conditional rules; and the method further comprises receiving from a user inputs to create and edit non-conditional rules.

Claim 44

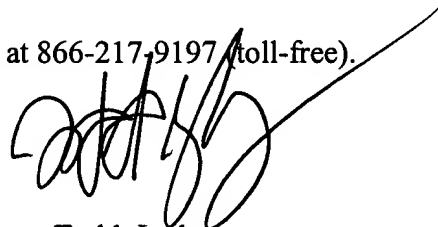
The method of claim 40, wherein all if-values and then-values in the same vertical column of values in the two right quadrants are linked to each other to define a rule.

Correspondence

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Todd Ingberg whose telephone number is (571) 272-3723. The examiner can normally be reached on during the work week..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Todd Ingberg
Primary Examiner
Art Unit 2124